## **ABSTRACT**

Systems, methods and software products are provided for lockstep mode test case initialization of a multi-core processor. One or more initialization statements of the test case simulation are determined that identify one or more first registers of a simulated primary core. If the test case simulation specifies that the multi-core processor design operates in lockstep mode, scope of the initialization statements is modified. The first registers specified by the initialization statements are initialized, and unmodified initialization statements are processed to initialize second registers of simulated cores of the multi-core processor design, as specified by the unmodified initialization statements.